Richard Langan et al.

Appln. No.

09/960,079

Page

2

In the Claims:

This listing of claims will replace all prior versions and listings, of claims in the application:

- 1. (original) A battery comprising an anode electrode, a cathode electrode, electrolyte, at least one external electrode contact and a battery enclosure sealed about at least a portion of the perimeter of the battery, said battery enclosure comprising electrically conductive material, said external electrode contact formed from said electrically conductive material.
- 2. (original) The battery of claim 1 wherein the battery enclosure further comprises a sealable material.
- 3. (original) The battery of claim 2 wherein the battery enclosure further comprises a protective polymer material.
- 4. (original) The battery of claim 3 wherein the sealable material and the electrically conductive material and the protective polymer material are discrete materials.
- 5. (original) The battery of claim 4 wherein the battery enclosure is a laminate, said laminate comprising a first layer of said sealable material, a second layer of said protective polymer material, and a layer of electrically conductive material positioned between said first and second layers.
- 6. (original) The battery of claim 5, wherein at least one of said first and second layers is discontinuous.
- 7. (original) The battery of claim 6, wherein the first layer is discontinuous at a location within the seal perimeter of said battery to expose a first surface of said electrically conductive

Richard Langan et al.

Appln. No.

09/960,079

Page

3

material, and wherein at least a portion of the exposed first surface is in electrical contact with an electrode.

- 8. (original) The battery of claim 7, wherein the second layer is discontinuous at a location within the seal perimeter of said battery to expose a second surface of the electrically conductive material, at least a portion of the exposed second surface forming the external contact.
- 9. (original) The battery of claim 7, wherein the first layer is also discontinuous at a location outside the seal perimeter of the battery to also expose the first surface of said electrically conductive material outside the seal perimeter, at least a portion of the exposed first surface outside the seal perimeter forming the external contact.
- 10. (original) The battery of claim 7, wherein the second layer is discontinuous at a location outside the seal perimeter of said battery to expose a second surface of said electrically conductive material, at least a portion of the exposed second surface outside the seal perimeter forming the external contact.
- 11. (original) The battery of claim 8, wherein the discontinuity in the first layer is formed by removal of a portion of the seal material from the first surface of said electrically conductive material and the discontinuity in the second layer is formed by removal of a portion of the protective polymer material from the second surface of said electrically conductive material.
- 12. (original) The battery of claim 8, wherein the discontinuity in the first layer is formed by the selective deposition of seal material onto the first surface of said electrically conductive material and the discontinuity in the second layer is formed by selective deposition of protective polymer material onto the second surface of said electrically conductive material.

Richard Langan et al.

Appln. No.

09/960,079

Page

4

- 13. (original) The battery of claim 9, wherein the discontinuities in the first layer are formed by the removal of seal material from the first surface of said electrically conductive material.
- 14. (original) The battery of claim 9, wherein the discontinuities in the first layer are formed by the selective deposition of seal material onto the first surface of said electrically conductive material.
- 15. (original) The battery of claim 10, wherein the discontinuity in the first layer is formed by removal of a portion of the seal material from the first surface of said electrically conductive material and the discontinuity in the second layer is formed by removal of a portion of the protective polymer material from the second surface of said electrically conductive material.
- 16. (original) The battery of claim 10, wherein the discontinuity in the first layer is formed by the selective deposition of seal material onto the first surface of said electrically conductive material and the discontinuity in the second layer is formed by selective deposition of protective polymer material onto the second surface of said electrically conductive material.
- 17. (original) The battery of claim 12, wherein the selective deposition of the seal material and the selective deposition of the protective polymer material is achieved by printing the seal material onto the first surface of the electrically conductive layer and the protective polymer material onto the second surface of the electrically conductive layer.
- 18. (original) The battery of claim 14, wherein the selective deposition of the seal material is achieved by printing the seal material onto the first surface of the electrically conductive layer.

Richard Langan et al.

Appln. No.

09/960,079

Page

5

19. (original) The battery of claim 16, wherein the selective deposition of the seal material and the selective deposition of the protective polymer material is achieved by printing the seal material onto the first surface of the electrically conductive layer and the protective polymer material onto the second surface of the electrically conductive layer.

- 20. (original) The battery of claim 7, wherein electrical contact between the electrode and the surface of the electrically conductive material is achieved by printing active electrode material onto the exposed surface of the electrically conductive layer.
- 21. (original) A method for assembling a battery, comprising the steps of providing a packaging material comprising an electrically conductive material and a sealable material, exposing a portion of a first surface of the conductive material; exposing a portion of a second surface of the conductive material, enclosing an anode, a cathode and an electrolyte within the packaging material, providing an electrical contact between an electrode and the first surface, and sealing the packaging material about a perimeter such that said second surface is external to the battery.
- 22. (original) The method of claim 21, wherein said step of exposing a portion of a first and second surface of the conductive material comprises the removal of an overlayer material from the surfaces of the conductive material.
- 23. (original) The method of claim 21, wherein said step of exposing a portion of a first and second surface of the conductive material comprises the selective coating of overlayer material onto the surfaces of the conductive material.
- 24. (new) The battery of claim 1, wherein the battery is a flexible thin battery.

Richard Langan et al.

Appln. No.

09/960,079

Page

6

25. (new) The battery of claim 1, wherein the electrically conductive material serves as the external electrode contact to avoid a need for tabs to pass through a sealed area of the battery.

- 26. (new) A flexible thin battery comprising an anode electrode, a cathode electrode, electrolyte, at least one external electrode contact and a battery enclosure sealed about at least a portion of the perimeter of the battery, said battery enclosure comprising electrically conductive material, said external electrode contact formed from said electrically conductive material, wherein the battery enclosure is a laminate, said laminate comprising a first layer of sealable material, a second layer of protective polymer material, and a layer of the electrically conductive material positioned between said first and second layers.
- 27. (new) The battery of claim 26, wherein the first layer is discontinuous at a location within the seal perimeter of said battery to expose first and second surfaces of said electrically conductive material, wherein at least a portion of the exposed first surface is in electrical contact with an electrode, and at least a portion of the exposed second surface forming the external electrode.
- 28. (new) The battery of claim 26, wherein the first layer is discontinuous at a location outside the seal perimeter of the battery to expose a first surface of said electrically conductive material outside the seal perimeter, at least a portion of the exposed first surface outside the seal perimeter forming the external contact.
- 29. (new) The battery of claim 26, wherein the second layer is discontinuous at a location outside the seal perimeter of said battery to expose a second surface of said electrically conductive material, at least a portion of the exposed second surface outside the seal perimeter forming the external contact.

Richard Langan et al.

Appln. No.

09/960,079

Page

7

30. (new) The battery of claim 26, wherein the electrically conductive material serves as the external electrode contact to avoid a need for tabs to pass through a sealed area of the battery.